

SEQUENCE LISTING

<110> Ferrara, N.
Le Couter, J.

<120> COMPOSITIONS WITH HEMATOPOIETIC AND
IMMUNE ACTIVITY

<130> 12279-424-999

<140> 10/549,241

<141> 2006-06-12

<150> 60/511,390

<151> 2003-10-14

<150> 60/454,462

<151> 2003-03-12

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<210> 1

<211> 427

<212> DNA

<213> Artificial Sequence

<220>

<223> cDNA encoding a human Bv8 homologue

<400> 1

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ctcccaatgt ggtggaggca tgtgctgtgc tgtcagtac tgggtcaaga gcataaggat 180
ttgcacacct atgggcaaac tgggagacag ctgccatcca ctgactcgta aaaacaattt 240
tggaatgga aggcaggaaa gaagaaagag gaagagaagc aaaaggaaaa aggaggttcc 300
atTTTTTggg cggaggatgc atcacacttg cccatgtctg ccaggcttgg cctgtttacg 360
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<210> 2

<211> 129

<212> PRT

<213> Homo sapiens

<220>

<223> human Bv8 homologue

<400> 2

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Met Arg Ser Leu Cys Cys Ala Pro Leu Leu Leu Leu Leu Leu Pro
 1          5          10          15
Pro Leu Leu Leu Thr Pro Arg Ala Gly Asp Ala Ala Val Ile Thr Gly
      20          25          30
Ala Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val
      35          40          45
Ser Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Lys Leu
      50          55          60
Gly Asp Ser Cys His Pro Leu Thr Arg Lys Asn Asn Phe Gly Asn Gly
65          70          75          80

```

Arg Gln Glu Arg Arg Lys Arg Lys Arg Ser Lys Arg Lys Lys Glu Val
85 90 95
Pro Phe Phe Gly Arg Arg Met His His Thr Cys Pro Cys Leu Pro Gly
100 105 110
Leu Ala Cys Leu Arg Thr Ser Phe Asn Arg Phe Ile Cys Leu Ala Gln
115 120 125
Lys

<210> 3
<211> 423
<212> DNA
<213> Artificial Sequence

<220>
<223> cDNA encoding human Bv8 homologue

<400> 3
tgagggcgcc atgaggagcc tgtgctgcgc ccactcctg ctcctcttgc tgetgcgcgc 60
gagggcgcca tgaggagcct gtgctgcgcc ccactcctgc tcctcttgct gctgcgcgcg 120
ctgctgctca cgccccgcgc tggggacgcc gccgtgatca ccggggcctg tgacaaggac 180
tcccaatgtg gtggaggcat gtgctgtgct gtcagtatct gggtaagag cataaggatt 240
tgcacaccta tgggcaaact gggagacagc tgccatccac tgactcgtaa agttccattt 300
tttgggcgga ggatgcatca cacttgccca tgtctgccag gcttggcctg tttacggact 360
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tga 423

<210> 4
<211> 108
<212> PRT
<213> Homo sapiens

<220>
<223> human Bv8 homologue

<400> 4
Met Arg Ser Leu Cys Cys Ala Pro Leu Leu Leu Leu Leu Leu Pro
1 5 10 15
Pro Leu Leu Leu Thr Pro Arg Ala Gly Asp Ala Ala Val Ile Thr Gly
20 25 30
Ala Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val
35 40 45
Ser Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Lys Leu
50 55 60
Gly Asp Ser Cys His Pro Leu Thr Arg Lys Val Pro Phe Phe Gly Arg
65 70 75 80
Arg Met His His Thr Cys Pro Cys Leu Pro Gly Leu Ala Cys Leu Arg
85 90 95
Thr Ser Phe Asn Arg Phe Ile Cys Leu Ala Gln Lys
100 105

<210> 5
<211> 1338
<212> DNA
<213> Mus musculus

<220>
<223> mouse Bv8 homologue

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<400> 5
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ctgtgccccg ctactgctac ttctgctgct accgctgctg ttcacaccgc ccgcggggga 120
tgccgcggtc atcacccggg cttgcgacaa ggactctcag tgcggaggag gcatgtgctg 180
tgctgtcagt atctgggtta agagcataag gatctgcaca cctatgggoc aagtgggcga 240
cagctgccac cccctgactc ggaaagttec attttggggg cggaggatgc accacacctg 300
cccctgcctg ccaggccttg cgtgtttaag gacttctttc aaccggttta tttgcttggc 360
ccggaaatga tctactctgaa gtaggaactt gaaatgcgac cctccgctgc acaatgtccg 420
tcgagtctca cttgtaattg tggcaaacaa agaatactcc agaaagaaat gttctcccc 480
ttccttgact ttccaagtaa cgtttctatc tttgattttt gaagtggctt tttttttttt 540
ttttttttcc tttccttgaa ggaaagtttt gatttttgga gagatttata gaggactttc 600
tgacatggct tctcatttcc ctgtttatgt tttgccttga catttttgaa tgccaataac 660
aactgttttc acaaataagga gaataagagg gaacaatctg ttgcagaaac ttcccttttg 720
cctttgcccc actcgcctcg ccccgccccg ccccgccctg cccatgcgca gacagacaca 780
cccttactct tcaaagactc tgatgatcct caccttactg tagcattgtg ggtttctaca 840
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tgaaccagat cccccaagca gctcatttgg ggcagacgtt gggagcgctc caggaaactt 960
cctgcaccca tctggccca c tggctttcag ttctgctgtt taactgggtg gaggacaaaa 1020
ttaacgggac cctgaaggaa cctggcccggt ttatctagat ttgtttaagt aaaagacatt 1080
ttctccttgt tgtggaatat tacatgtctt tttctttttt atctgaagct tttttttttt 1140
ttctttaagt cttcttggtg gagacatttt aaagaacgcc actcgaggaa gcattgat 1200
tcatytgga tgacaggagt catcatttta aaaaatcggt gttaagttat aatttaaact 1260
ttatttgtaa cccaaaggt tytaatgtaaat ggatttcctg atatcctgcc atttgctactg 1320
gtatcaatat ttytatgt 1338

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<210> 6
<211> 107
<212> PRT
<213> Mus musculus

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<220>
<223> mouse Bv8 homologue

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<400> 6
Met Gly Asp Pro Arg Cys Ala Pro Leu Leu Leu Leu Leu Leu Pro
1          5          10          15
Leu Leu Phe Thr Pro Pro Ala Gly Asp Ala Ala Val Ile Thr Gly Ala
20          25          30
Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val Ser
35          40          45
Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Gln Val Gly
50          55          60
Asp Ser Cys His Pro Leu Thr Arg Lys Val Pro Phe Trp Gly Arg Arg
65          70          75          80
Met His His Thr Cys Pro Cys Leu Pro Gly Leu Ala Cys Leu Arg Thr
85          90          95
Ser Phe Asn Arg Phe Ile Cys Leu Ala Arg Lys
100          105

```

```

<210> 7
<211> 1415
<212> DNA
<213> Artificial Sequence

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```

<220>
<223> cDNA encoding human native EG-VEGF

```

```

<400> 7
tgccctcccc agcttgccag gcacaaggct gagcgggagg aagcgagagg catctaagca 60
ggcagtggtt tgccttcacc ccaagtgacc atgagaggtg ccacgcgagt ctcaatcatg 120

```

```

ctcctcctag taactgtgtc tgactgtgct gtgatcacag gggcctgtga gcgggatgtc 180
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accccgctgg ggcgggaagg cgaggagtgc caccocggca gccacaaggc ccccttcttc 300
aggaacgca agcaccacac ctgtccttgc ttgcccaacc tgctgtgctc cagggtccccg 360
gacggcaggt accgctgctc catggacttg aagaacatca atttttaggg gcttgccctg 420
tctcaggata cccaccatcc ttttctgag cacagcctgg atttttatct ctgccatgaa 480
accagctcc catgactctc ccagtcccta cactgactac cctgatctct cttgtctagt 540
acgcacatat gcacacaggc agacatacct cccatcatga catgggtccc aggctggcct 600
gaggatgtca cagcttgagg ctgtgggtgtg aaagggtggc agcctgggtc tcttccctgc 660
tcaggctgcc agagaggtgg taaatggcag aaaggacatt cccctccccc tcccagggtg 720
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tgggttaact cttagtttca gaccacagac tcaagattgg ctcttcccag agggcagcag 960
acagtcaccc caaggcaggt gtagggagcc caggggagcc aatcagcccc ctgaagactc 1020
tgggtcccagt cagcctgtgg cttgtggcct gtgacctgtg acctctctgc agaattgtca 1080
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agaaggcaat taggggtgtt ccttaaaca ctcttttcca aggatcagcc ctgagagcag 1260
gttggtgact ttgaggaggg cagtcctctg tccagattgg ggtgggagca agggacaggg 1320
agcagggcag gggctgaaag gggcactgat tcagaccagg gaggcaacta cacaccaaca 1380
tgctggcttt agaataaaa caccaactga aaaaa 1415

```

```

<210> 8
<211> 105
<212> PRT
<213> Homo sapiens

```

```

<220>
<223> human native EG-VEGF popypeptide sequence

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<400> 8
Met Arg Gly Ala Thr Arg Val Ser Ile Met Leu Leu Leu Val Thr Val
  1             5             10             15
Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Val Gln Cys
          20             25             30
Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg Gly Leu Arg
          35             40             45
Met Cys Thr Pro Leu Gly Arg Glu Gly Glu Glu Cys His Pro Gly Ser
          50             55             60
His Lys Val Pro Phe Phe Arg Lys Arg Lys His His Thr Cys Pro Cys
          65             70             75             80
Leu Pro Asn Leu Leu Cys Ser Arg Phe Pro Asp Gly Arg Tyr Arg Cys
          85             90             95
Ser Met Asp Leu Lys Asn Ile Asn Phe
          100             105

```

```

<210> 9
<211> 757
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> cDNA encoding native mouse EG-VEGF

```

```

<400> 9
gaagtgaagg gtaccaaagt agactgtgtt tgctcgtcacc tcaagtgatc atgagaggcg 60
ctgtgcatat cttcatcatg ctcttcttag caacggcgctc cgactgtgct gtcacacacag 120
gggcctgtga acgagatata cagtgtgggg ccggcacctg ctgcgctata agtctgtggc 180
tgcgggggcct gcggttgtgt accccactgg ggcgtgaagg agaggagtgc caccacaggaa 240

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gccacaagat ccccttcttg aggaaacgcc aacaccatac ctgtccctgc tcaccagcc 300
tgctgtgctc caggttcccg gacggcaggt accgctgctt ccgggacttg aagaataact 360
tttagtttgt ctggactctg tctggagcct gactgggtga cctcttgctt tacacctgtg 420
tgatttagct ccttgcaact tcgccattcc ccattctgtc cgtgtatgtg cagacaggca 480
gaccttcgcg tatggaatag ttcaccaggg tgcagagagg agttcgtggc cttgagaagt 540
tgccagccc gaccttcctg gctcagactg cctgaagttg tgacagtgtg ggccttctca 600
gttgccctgcc ccttcctgca tgtgcgcttc ttcctaaacc acacctttct gggcactggc 660
ccatggatgc accactaaat caacaggtct gtgggggtgga tgatcaactt tctctccatt 720
tttcttttat tgactggctt cctaatttaa ggactgt 757

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<210> 10
 <211> 105
 <212> PRT
 <213> Mus musculus

<220>
 <223> EG-VEGF polypeptide sequence

<400> 10
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 1 5 10 15
 Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Ile Gln Cys
 20 25 30
 Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg Gly Leu Arg
 35 40 45
 Leu Cys Thr Pro Leu Gly Arg Glu Gly Glu Glu Cys His Pro Gly Ser
 50 55 60
 His Lys Ile Pro Phe Leu Arg Lys Arg Gln His His Thr Cys Pro Cys
 65 70 75 80
 Ser Pro Ser Leu Leu Cys Ser Arg Phe Pro Asp Gly Arg Tyr Arg Cys
 85 90 95
 Phe Arg Asp Leu Lys Asn Ala Asn Phe
 100 105

<210> 11
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 11
 tgggctacac tgagcaccag 20

<210> 12
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 12
 cagcgtcaaa ggtggaggag 20

<210> 13
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Probe

 <400> 13
 tgggtctcctc tgacttcaac agcgacac 28

 <210> 14
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 14
 ccatttttttg ggcgagg 18

 <210> 15
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 15
 ccgtaaacag gccaaagcct 19

 <210> 16
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Probe

 <400> 16
 tgcacacac ttgccatgt ctgc 24

 <210> 17
 <211> 17
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 17
 ccggcagcca caaggtc 17

 <210> 18
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 18
 tgggcaagca aggacagg 18

<210> 19	
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<223> probe	
<400> 19	
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<210> 20	
<211> 17	
<212> DNA	
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<220>	
<223> PCR primer	
<400> 20	
ggcgcccttc tacggct	17
<210> 21	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR primer	
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<210> 22	
<211> 23	
<212> DNA	
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<223> Probe	
<400> 22	
caccatcgtg cgcgacttct tcc	23
<210> 23	
<211> 23	
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<213> Artificial Sequence	
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ggaaatgaca tctgtgttca tgc	23
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<211> 25	
<212> DNA	
<213> Artificial Sequence	

<220>
 <223> PCR primer

 <400> 24
 tcattgtatg ttacgacttt gcagc 25

 <210> 25
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> probe

 <400> 25
 cccgtgccct caagaagccg a 21

 <210> 26
 <211> 25
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 26
 atgttcagt atgactccac tcacg 25

 <210> 27
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 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 27
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 <210> 28
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 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> probe

 <400> 28
 aagcccatca ccatcttcca ggagcgaga 29

 <210> 29
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 29
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<210> 30
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 <220>
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 <400> 30
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 <210> 31
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 <220>
 <223> probe

 <400> 31
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 <210> 32
 <211> 20
 <212> DNA
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 <220>
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 <400> 32
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 <210> 33
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 <212> DNA
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 <220>
 <223> PCR primer

 <400> 33
 ccgggaacct ggagcac 17

 <210> 34
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> PCR primer

 <400> 34
 cctgtccctg ctcacccagc ctg 23

 <210> 35
 <211> 19
 <212> DNA
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<223> PCR primer	
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<220> <223> PCR primer	
<400> 39 gggtcccatg ttgatgatgc t	21
<210> 40 <211> 26 <212> DNA <213> Artificial Sequence	
<220> <223> probe	
<400> 40 ctccctgata cacaccagcc cacctg	26

<210> 41
 <211> 128
 <212> PRT
 <213> Mus musculus

 <220>
 <223> Mouse Bv8 homologue

<400> 41
 Met Gly Asp Pro Arg Cys Ala Pro Leu Leu Leu Leu Leu Leu Leu Pro
 1 5 10 15
 Leu Leu Phe Thr Pro Pro Ala Gly Asp Ala Ala Val Ile Thr Gly Ala
 20 25 30
 Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val Ser
 35 40 45
 Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Gln Val Gly
 50 55 60
 Asp Ser Cys His Pro Leu Thr Arg Lys Ser His Val Ala Asn Gly Arg
 65 70 75 80
 Gln Glu Arg Arg Arg Ala Lys Arg Arg Lys Arg Lys Lys Glu Val Pro
 85 90 95
 Phe Trp Gly Arg Arg Met His His Thr Cys Pro Cys Leu Pro Gly Leu
 100 105 110
 Ala Cys Leu Arg Thr Ser Phe Asn Arg Phe Ile Cys Leu Ala Arg Lys
 115 120 125